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| 10/522,249 | 01/25/2005 | Kazuyuki Kashiwabara | 2005-0091A | 6203 |

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EXAMINER

TAHA, SHAQ

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2109

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/522,249 | KASHIWABARA ET AL. | |
| | Examiner | Art Unit | |
| | shaq taha | 2109 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 - 16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>01/25/2005</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 15 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

- As per claim 15, Applicant has claimed “a computer-readable program” for causing a computer to “execute” instructions in the preamble to these claims; this implies that Applicant is claiming a system of software, per se, lacking the hardware necessary to realize any of the underlying functionality. Therefore, claim 15 is directed to non-statutory subject matter as computer programs, per se, i.e. the descriptions or expressions of the programs, are not physical “things.” They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program’s functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program’s functionality to be realized, and is thus statutory.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 1 recites the limitations “device’s own device “ , “another device “, and “the other device” in claim 1. There is insufficient antecedent basis for this limitation in the claim.
- Claim 5 recites the limitation “deterioration” in claim 5. There is insufficient antecedent basis for this limitation in the claim.
- Claim 16 recites the limitations “device’s own device “ , “another device “, and “the other device” in claim 16. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 14, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Sequeira et al. (US 6,222,530).

- Regarding claim 1, Sequeira teaches a device having a master function for use in a network system, **[Control of different devices and media servers, and hence, assets, is attained by the use of multiple device independent abstraction layers, (Column 2, line 66)]**;
in which a master device manages at least one slave device, **[In the preferred embodiment, the Master/Slave Scheduler API 130 is a synchronous protocol for distributing to and managing tasks in remote media servers, (Column 10, lines 4 – 7)]**;
the device comprising: a device's own device information managing section operable to manage device's own device information regarding the device, **[In the preferred embodiment, the Master/Slave Scheduler API 130 is a synchronous protocol for distributing to and managing tasks in remote media servers, (Column 10, lines 4 – 7)]**;

Art Unit: 2109

another device information managing section operable to manage other device information regarding at least one another device connected to the network system, [**In the preferred embodiment, the Master/Slave Scheduler API 130 is a synchronous protocol for distributing to and managing tasks in remote media servers, (Column 10, lines 4 – 7)];**

the other device information including at least availability of the master function, [**Control of different devices and media servers, and hence, assets, is attained by the use of multiple device independent abstraction layers, (Column 2, line 66)];**

a schedule information managing section operable to manage schedule information indicative of master device candidates by predetermined segment, [**In the preferred embodiment Master Scheduler 120 communicates with Media Server 130 over a network, and thus Master/Slave Scheduler API is comprise of two parts, Master/Slave Scheduler API and Master/Slave Scheduler API as part of Master Scheduler and Slave Task Scheduler, respectively, (Column 4, lines 25 – 30)];**

a device information processing section operable, when the device operates as the master device, to specify, at a predetermined time, [**processing said task and initiating at a predetermined time said media server to access and distribute said multimedia, (Column 22, lines 60–62)];**

a slave device which is one of the master device candidates having the master function based on the other device information and the schedule information, [**The events are translated into tasks and sent to media servers for execution at a predetermined**

time by being further translated into media specific tasks to control a bit-pump, (See Abstract)];

and operable to obtain predetermined information from the specified slave device, **[This information often resides in one or more databases, which can be, for instance, flat-file, relational or object-oriented databases, (Column 1, lines 58 – 60)].**

and a switch controlling section operable to control switching of a master operation and a slave operation based on the predetermined information obtained by the device information processing section and the predetermined information included in the device's own device information, **[Note: This API message is used to code emergency procedures and specific setup and teardown procedures (such as initialization) for the specific devices. The suffix Sw denotes a variable used as a switch with values, (Tabl2. 2).**

- Regarding claim 2, Sequeira teaches that the predetermined time is a time when a device having the master function is newly connected to the network system, **[The Slave Task Scheduler is adapted to track the tasks given to it, and, prepare media device to send the scheduled information at the appropriate time, (Column 3, lines 10 – 13)].**
- Regarding claim 3, Sequeira teaches that the predetermined time is a time when a change occurs to the device's own device information managed by the device's own device information managing section, **[processing said task and initiating at a predetermined**

time said media server to access and distribute said multimedia, (Column 22, lines 60 – 62)].

- Regarding claim 5, Sequeira teaches that the change of the device's own device information is a deterioration in communication quality, **[a Master Scheduler and a Slave Task Scheduler thereby ensuring that a failure of the Master Scheduler does not bring down the entire broadcast system, (Column 2, lines 57 – 59)]**.
- Regarding claim 6, Sequeira teaches that the communication quality is a quality of communication with the slave device included in the network system, **[At the appropriate time, the thread may issue a command via the Master/Slave Scheduler API to Media Server using some network communication mechanism, (Column 9, lines 22 – 26)]**.
- Regarding claim 7, Sequeira teaches that the communication quality is a quality of communication with a master device included in another network forming the network system, **[In the preferred embodiment Master Scheduler 120 communicates with Media Server 130 over a network, and thus Master/Slave Scheduler API is comprise of two parts, Master/Slave Scheduler API and Master/Slave Scheduler API as part of Master Scheduler and Slave Task Scheduler, respectively, (Column 4, lines 25 – 30)]**.

- Regarding claim 8, Sequeira teaches that the predetermined information is resource information required for the master operation, **[This information often resides in one or more databases, which can be, for instance, flat-file, relational or object-oriented databases, (Column 1, lines 58 – 60)]**.
- Regarding claim 10, Sequeira teaches that the predetermined information is a state of load on a CPU, **[See Fig. 2]**.
- Regarding claim 11, Sequeira teaches that the predetermined segment is a segment of time of day, **[execution code segment for executing said task at a predetermined time, (Column 24, lines 46 – 50)]**.
- Regarding claim 12, Sequeira teaches that the predetermined segment is a segment of season, **[execution code segment for executing said task at a predetermined time, (Column 24, lines 46 – 50)]**.
- Regarding claim 13, Sequeira teaches that the switch controlling section transmits the other device information managed by the other device information managing section to a device newly performing the master operation, **[An IPPA media server (Internet Push Pull Agent) is a device that is connected to the Internet and can transmit information from a service such as PointCast or can retrieve information from an Internet or internal site, (Column 6, line 65)]**.

- Regarding claim 14, Sequeira teaches a master/slave switching method to be, performed on a device currently performing a slave operation by a device currently performing a master operation, **[Media Server 130 is comprised of Slave Task Scheduler 140 which communicates with Master Scheduler 120 through Master/Slave Scheduler API 180 and with Bit pump 150 through Device Specific API 190, (Column 4, lines 8 – 12)];** the method comprising the steps of: specifying, at a predetermined time, **[processing said task and initiating at a predetermined time said media server to access and distribute said multimedia, (Column 22, lines 60 – 62)].**
a slave device which is one of master device candidates having a master function based on other device information, **[in accordance with one aspect of the invention, a Master Scheduler and a Slave Task Scheduler thereby ensuring that a failure of the Master Scheduler does not bring down the entire broadcast system, (Column 2, lines 56 – 59)];**
including at least availability of the master function of other devices connected to a network, **[In the preferred embodiment Master Scheduler 120 communicates with Media Server 130 over a network, (Column 4, lines 25 – 27)];**
and schedule information indicative of master device candidates by predetermined segment, **[execution code segment for executing said task at a predetermined time, (Column 24, lines 46 – 50)];**

Art Unit: 2109

obtaining predetermined information from the specified slave device, **[This information often resides in one or more databases, which can be, for instance, flat-file, relational or object-oriented databases, (Column 1, lines 58 – 60)];**

and controlling switching of the master operation and the slave operation based on the predetermined information obtained in the information obtaining step and predetermined information of device's own device information of the device currently performing the master operation, **[The Timeline and Task Management Unit 510 tracks the tasks received for the media server and controls the execution of a task on the media server, (Column 21, lines 11 – 14)].**

- Regarding claim 16, Sequeira teaches an integrated circuit for use in a device having a master function, **[Combiner Field 2110 identifies the combiner, a device for integrating multiple channels into one view, for the programs identified in Program Field 1911 for the particular combiner, (Column 16, lines 32 – 35) & (Fig.21)];** the device being used in a network system in which a master device manages at least one slave device, **[In the preferred embodiment, the Master/Slave Scheduler API 130 is a synchronous protocol for distributing to and managing tasks in remote media servers, (Column 10, lines 4 – 7)];** the circuit comprising: a device's own device information managing section operable to manage device's own device information regarding a device including the circuit, **[In the preferred embodiment, the Master/Slave Scheduler API 130 is a synchronous**

protocol for distributing to and managing tasks in remote media servers, (Column 10, lines 4 – 7)];

an other device information managing section operable to manage other device information regarding at least one another device connected to the network system, [**In the preferred embodiment, the Master/Slave Scheduler API 130 is a synchronous protocol for distributing to and managing tasks in remote media servers, (Column 10, lines 4 – 7)];**

the other device information including at least availability of the master function, [**In the preferred embodiment, the Master/Slave Scheduler API 130 is a synchronous protocol for distributing to and managing tasks in remote media servers, (Column 10, lines 4 – 7)];**

a schedule information managing section operable to manage schedule information indicative of master device candidates by predetermined segment, [**execution code segment for executing said task at a predetermined time, (Column 24, lines 46 – 50)].**

a device information processing section operable, when the device operates as the master device, to specify, at a predetermined time, a slave device which is one of the master device candidates having the master function based on the other device information and the schedule information, and operable to obtain predetermined information from the specified slave device, [**The events are translated into tasks and sent to media servers for execution at a predetermined time by being further translated into media specific tasks to control a bit-pump, (See Abstract)];**

and a switch controlling section operable to control switching of a master operation and a slave operation based on the predetermined information obtained by the device information processing section and the predetermined information included in the device's own device information, [Note: This API message is used to code emergency procedures and specific setup and teardown procedures (such as initialization) for the specific devices. The suffix Sw denotes a variable used as a switch with values, (Tabl2. 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sequeira et al. (US 6,222,530) as applied to claims 1 above, and further in view of Hart et al. (US 6,005,759).

- Regarding Claims 4 and 9, Sequeira teaches the method according to claim 1, as described above. Sequeira further teaches a system and method for associating and

controlling multimedia supporting events with a primary event. The events are translated into tasks and sent to media servers for execution at a predetermined time by being further translated into media specific tasks to control a bit-pump, **(See Abstract)**.

Sequeira et al. differs from the claimed invention in that the change of the device's own device information is a reduction in a remaining amount of battery is not taught in Sequeira et al.

Hart teaches a system for monitoring and controlling an electrical distribution network comprises an electrical distribution substation having a local area network (LAN), a feeder subsystem and a gateway. The feeder subsystem is coupled to the substation and receives electrical energy therefrom for distribution to customers, and includes slave devices for performing switching functions. The gateway provides remote access to the slave devices and the LAN, **(See Abstract)**, and further teaches that the equipment analysis and testing application 24 provides off-line capability to remotely test distribution equipment. For example, a remote battery test could be periodically scheduled using the equipment scheduler, **(Column 6, lines 44 - 50)**. Hart provides the advantage of the change of the device's own device information is a reduction in a remaining amount of battery.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Sequeira by including a reduction in a remaining amount of battery as taught by Hart.

Art Unit: 2109

One of ordinary skill in the art would have been motivated to make this modification in order provide the advantage of providing the advantage of the change of the device's own device information is a reduction in a remaining amount of battery.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,222,530. System and method for a master scheduler.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Shaq Taha** whose telephone number is 571-270-1921. The examiner can normally be reached on 8:30am-5pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Jeff Pwu** can be reached on 571-272-6798.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shaw Tara

7/5/2007


JEFFREY PWU
SUPERVISORY PATENT EXAMINER